

REMARKS/ARGUMENTS

Applicant thanks the Examiner for the attention to this application. Favorable reconsideration of the application is respectfully requested.

The title of the application has been amended to read --Backplane for Industrial Computers--.

The application contains Claims 1-6, 8-20 and 22-31, including independent Claims 1,15 and 29.

Applicant has amended claim 1 to add the features of Claim 7. Accordingly, Claim 7 has been canceled. Claim 8, which was dependent on former Claim 7, has been amended to depend on amended claim 1. Claim 8 has been further amended to replace “first backplane segment” with the term --first modular backplane segment-- and to replace the term, “second backplane segment”, with --second modular backplane segment--.

Applicant has amended Claim 15 to add the features of Claim 21. Accordingly, Claim 21 has been canceled. Claim 22, which was dependent on former Claim 21, has been amended to depend on Claim 15. Claim 22 has been further amended to replace the term, “a left-most slots” with --a left-most pair of slots-- and to replace “the backplane segment” with --the modular backplane segment--.

Applicant has amended Claim 29 to replace the term, “modular backplane segment” with --backplane segment--, and to recite that the first and second dedicated connectors are provided in an area where no slot is formed. Support for the amendment to claim 29 can be found, for example, in former Claim 7.

Claims 13 and 27 have been amended to replace the term, “a module backplane” with --a modular backplane--.

Applicant has added new Claims 30 and 31, which directly or indirectly depend on Claim 1. The support for new claim 30 can be found, for example, in Figures 3 and 6 and the corresponding description. The support for new Claim 31 can be found, for example, in Figure 3 and on page 10, lines 16-18.

No new matter has been introduced by way of the amendments to the claims.

Applicant has amended pages 4 and 5 of the specification so that the amended passages more closely resemble the language of amended Claims 1 and 15. Applicant has added new paragraphs on page 7 which correspond to Claim 29. No new matter has been introduced by way of these amendments.

Applicant has submitted herewith cleaner versions of Figures 1-9. Figures 1A, 1B, 2A, and 2B have been labeled --Prior Art--. No new matter has been introduced by way of the amendment.

The Official Action contained an objection to the drawings under 37 CFR 1.83(a). The Examiner stated that the plurality of bridge modules (claim 15) must be shown or the feature(s) canceled from the claim(s).

Applicant has submitted herewith new Figure 10, which illustrates the features of Claim 15. Applicant has amended the Brief description of the Drawings on page 8 to add the brief description of Figure 10. Further, Applicant has added new paragraphs on page 12 to add the description of Figure 10. The amendments to the specification and drawings are fully supported by the application as originally filed. No new matter has been introduced by way of the amendment.

A further objection was made, on the basis that Figures 1A-1B and 2A-2B should have been designated by a legend such as -- Prior Art--. Figures 1A-1B and 2A-2B have been amended to add the label --Prior Art--. In view of these changes, withdrawal the objections to the drawings is respectfully requested.

Claims 1-2, 7, 9-16, 21 and 23-28 were initially rejected under 35 U.S.C. 102(e) as being anticipated by Mills et al. (U.S. Patent No. 6,425,027), herein referred to as Mills. Claims 3-6 and 17-20 were initially rejected under 35 U.S.C. 103(a) as being obvious, and therefore unpatentable, over Mills. The rejections are traversed for the reasons set forth below.

Claim 1 is directed to a modular backplane which includes first and second modular backplane segments and a bridge module. The front side of each modular backplane segment has a plurality of slots. The back side of each modular backplane segment has a dedicated connector. The bridge module has connectors, which are engaged with the dedicated connectors of the first and second modular backplane segments. The first and second dedicated connectors are provided in an area where no slot is formed.

Claim 15 is directed to a modular backplane which has a plurality of modular backplane segments and a plurality of bridge modules. The front side of the modular backplane segment has a plurality of slots. The back side of the modular backplane segment has primary and secondary dedicated connectors. The bridge module has connectors, which are engaged with the dedicated connectors. The primary and secondary dedicated connectors are provided in an area where no slot is formed.

Mills discloses a modular backplane, which has two modular backplane segments and a bridge module 116. Mills illustrates the back side and the front side of the modular backplane in Figures 1 and 2. As shown in Figure 1, the bridge module 116 connects to J1 and J2 connectors of the Bridge Slot 118 on the primary segment and to J1 and J2 connectors of the System Slot 117 of the secondary segment. The connectors, which are connected to the bridge module 116, are provided in an area (referred to as back side area) where the Slots are formed. As shown in Figure 2,

a plurality of slots are formed in a front side area which corresponds to the back side area. Mills neither discloses nor suggests that a modular backplane includes a bridge module and first and second modular backplane segments, each of which has a front side and a back side, wherein the front side includes a plurality of slots, and wherein the back side includes a dedicated connector provided in an area where no slot is formed. These features are set forth in both Claims 1 and 15. As such, the Mills patent is not believed to anticipate, nor is it believed to render obvious, the invention as now set forth in amended Claims 1 and 15.

Hence, it is respectfully submitted that Claims 1-6, 8-20 and 22-28 are allowable over the cited Mills reference. Reconsideration and withdrawal of the rejection of these claims under 35 USC §102(e) or §103(a), are respectfully requested.

Claim 29 has been initially rejected under 35 USC 103(a) as being unpatentable over Mills, and in view of Vaisanen et al. (U.S. Patent No. 6,356,967), hereinafter referred to as Vanisanen, or Bremer (U.S. Patent No. 5,282,112).

Claim 29 is directed to a monolithic backplane which includes first and second backplane segments and a bridge module. The front side of each backplane segment has a plurality of slots. The back side of each backplane segment has a dedicated connector. The bridge module has connectors, which are engaged with the dedicated connectors of the first and second backplane segments. The first and second dedicated connectors are provided in an area where no slot is formed.

As discussed above, Mills discloses the modular backplane segments which have the connectors provided in an area where the slots are formed. Mills neither discloses nor suggests the subject matter defined by claim 29. Neither Vaisanen or Bremer provides any teachings or suggestions which make up for the shortcomings of

the Mills patent. Claim 29 is thus believed to be allowable over this combination of references.

Reconsideration and withdrawal of the rejection of Claim 29 under 35 USC §103(a) are therefore respectfully requested.

Passage of this application to issue at an early date is earnestly solicited.

Respectfully Submitted,

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